

ABSTRACT OF THE DISCLOSURE

A communication device using orthogonal multiplexing carrier method for determining delay information of received radio waves. In this device, a known signal demodulator performs OFDM demodulation to output demodulated signal, and a divider performs a complex division of the demodulated signal with a data sector of known signal of a database for each sub-carrier. By the data section of the known signal, the computation result of the amount of shift can be determined for each of sub-carriers. A delay analytical calculation circuit uses the computation result of the amount of shift for sub-carriers to analyze the delayed waves. For delay analysis, ESPRIT method is used to determine delay information by means of computation result of the amount of shift for each sub-carrier.

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